

Gesture and information structure: A case study on gestural topic markers in southern Italo-Romance

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This paper investigates the interplay between information structure and gesture from a generative perspective, focusing on a case study involving the gestural topic marker [FINGER-BUNCH-OPEN-HAND] ([FBO]) in southern Italo-Romance. This conventionalised gesture has previously been reported as marking the topic of utterances in non-formal linguistics (Kendon 1995). However, its precise grammatical contribution to the utterance remains unclear. Assuming the ‘Grammatical Integration Hypothesis’ (Colasanti 2023b) – which holds that any gesture assigned a semantic denotation and a phonological representation is the output of a syntactic representation – this paper shows that [FBO] behaves like spoken topic markers (e.g. Japanese *wa*), exhibiting a similar syntactic distribution but externalised in the visual-gestural modality instead. More generally, from a formal perspective, the relation between information structure and gesture is primarily a matter of syntax-phonology interface; it is by no means special, but rather parallels what is found in the spoken modality.

KEYWORDS: topic, gesture, syntax.

1. Introduction: gesture and information structure

This paper explores the interaction between information structure and gesture, particularly focusing on topicalisation. Specifically, we discuss a case study involving the conventionalised gesture [FINGER-BUNCH-OPEN-HAND] ([FBO]) in the southern Italo-Romance language Torrese (spoken in Torre del Greco, province of Napoli, Campania), which behaves like spoken Topic markers (**T-markers**) found in both spoken and sign languages.

The interplay between information structure, the morphosyntactic mechanisms involved in its grammatical expression, and gesture has already been investigated before. Adopting a formal perspective, Colasanti (2023b; see also Colasanti & Cuonzo 2022) discusses the case of a gestural focus marker (i.e. [RING-FOCUS]) in the local southern Italo-Romance language Lancianese (spoken in Lanciano, province of Chieti, Abruzzo). In particular, this co-speech gesture can mark different types of focus, like in (1), in which the gesture’s alignment with speech

coincides with the focalised constituent *na BMW* ‘a BMW’, interpreted as a Contrastive Focus (**CFoc**)¹ in the left periphery.

(Throughout, boldface indicates focalised or topicalised constituents, while underline indicates the temporal alignment of the gesture with the spoken component of the sentence.)

(1) Lancianese (Colasanti 2023b: 19)

Context: Ginə knows that Rokkə bought a new car. When he meets his father at the market, he asks him:

Ginə: *Rokkə s'a accattatə n'Audi?*

‘Did Rokkə buy an Audi?’

Rokkə's father:



No, *na BMW s' a accattatə Rokkə.*

no a BMW REFL has bought Rokkə

‘No, Rokkə bought A BMW.’

On the basis of such empirical evidence, [RING-FOCUS] is claimed to behave like spoken focus markers found in several spoken languages (Hopper 1979; Munro & Willmond 1994; Aboh 2004; Hartmann & Zimmermann 2007), such as *á* in Gúrúntúm. In (2), the focus marker *á* marks the focalised constituents *kwá* ‘who’ and *fúrmáyò* ‘furlani’:

(2) Gúrúntúm (Büiring 2009: 201)

a. *Á kwá bá wúm kwálingá-í?*

FOC who PROG chew colanut-the

‘WHO is chewing the colanut?’

b. *Á fúrmáyò bá wúm kwálingá.*

FOC fulani PROG chew colanut

‘THE FULANI is chewing colanut.’

Crosslinguistically, focalised constituents can be marked syntactically (via movement), like in many Romance languages, and morphologically, via focus marker morphemes (see Cruschina 2016 and references therein). On top of being marked syntactically, in Lancianese focalised

constituents can also be marked morphologically via the gestural focus marker [RING-FOCUS], which is claimed to be the gestural counterpart of spoken focus markers such as *á* in Gúrúntúm (Colasanti 2023b).

Such grammatical contribution of gesture to the information structure of sentences is predicted by the ‘Grammatical Integration Hypothesis’ (GIH; Colasanti 2023b: 11), by which any gesture assigned a semantic denotation and a phonological representation is the output of a syntactic representation. Hence, gestures are like spoken morphemes but they happen to be externalised at Phonological Form (PF; or ‘Sensorimotor System’; Chomsky 1995) in the visual-gestural modality (gesture) rather than in the auditory-spoken modality (speech). Therefore, by the GIH, the difference between gesture and speech is just a matter of modality of externalisation. Since in spoken languages syntactic constituents can also be interpreted as topics via special spoken morphemes (i.e. spoken T-markers), then these morphemes could also be realised in principle in the visual-gestural modality as gesture. Consequently, the information structure of the sentence can also be gesturally marked (in the visual-gestural modality) in otherwise spoken languages. In that sense, the relation between information structure and gesture is primarily a matter of syntax-phonology interface and it is not special by any means, but similar to what is found in the auditory-spoken modality.²

Empirically, the GIH is supported by various studies, which show how question particles (Colasanti 2023a), focus markers (Colasanti & Cuonzo 2022; Colasanti 2023b), and epistemic markers ((3); Marchetiello 2024) can be realised gesturally in otherwise spoken languages. For instance, in Ercolanese (spoken in Ercolano, province of Napoli, Campania) the co-speech gesture [PALM-DOWN-OPEN-HAND-PRONE] ([PDO]) expresses the epistemic stance of the speaker on the spoken proposition, which coincides with the gesture’s temporal alignment (corresponding to its scope/c-command domain, following Colasanti 2023a). For instance, in (3) [PDO] is used to mark a high degree of certainty of the speaker on the propositional value of the sentence, conveying that Sara (the speaker) is sure that she can cook the tastiest casatiello ever:

(3) Ercolanese (Marchetiello 2024)

Context: Sara is very good at baking. She is talking about food with her friend Luisa, and says:

[PDO]

'O faccio troppa bbuonà 'o casatiello.

it.CL I.do too well the casatiello

'I am sure that I make the tastiest casatiello ever.'

Following these previous studies, this paper proposes a formal account of the co-speech gesture [FBO], which has been previously reported as being able to mark the topic of the sentence in previous studies in non-formal linguistics (Kendon 1995: 264). Here, we focus on the behaviour of co-speech [FBO] in Torrese, demonstrating that [FBO] behaves like spoken T-markers (e.g. *wa* in Japanese: Heycock 2008; Imamura *et al.* 2014), displaying a similar syntactic distribution but externalised in the visual-gestural modality instead.

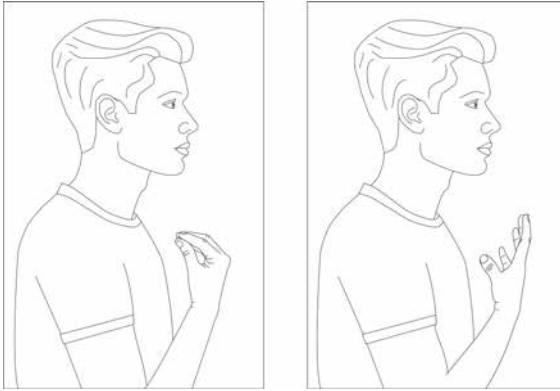
This paper is organised as follows. In Section 2, we discuss previous literature on the co-speech [FBO] gesture, together with some core notions on topicalisation assumed in our paper. In Section 3, we put forward our research questions, and in Section 4, we introduce the methodology used in this study (i.e. the 'Gestural Fieldwork' methodology: Colasanti 2021b, *forthcoming*) and the design of our experiments (including participants, materials, and procedure). In Section 5, we describe our results, and in Section 6 we discuss our analysis, showing parallels between the syntactic behaviour of [FBO] and other T-markers found crosslinguistically in both spoken and sign languages. Finally, in Section 7, we put forward some conclusions.

2. Background

2.1. The [FINGER-BUNCH-OPEN-HAND] gesture

The co-speech [FBO] gesture (also called *grappolo* 'bunch' by Kendon 2004: 229) is illustrated in (4):

(4) [FINGER-BUNCH-OPEN-HAND]



On the basis of the parameters used to describe the articulation of signs in sign languages (Sandler & Lillo-Martin 2006), the realisation of [FBO] involves a double articulation: first, the hand is held still together with all the fingers touching at their tips, and, second, the palm of the hand is open (with all the fingers opened at the same time), facing the speaker's torso but placed away from it. [FBO] is articulated within the torso/body mid-high line in front of the speaker. Both the arm and the hand are active articulators, while the forearm is moved vertically up and down at the elbow before opening the palm of the hand. [FBO] can be iterated, with movements having a large or a short amplitude.

De Jorio (1832) and Kendon (1995) describe this gesture and its use in several Campanian varieties. In particular, Kendon (1995) reports that [FBO] co-occurs with “that part of discourse in which the speaker is specifying a topic” (Kendon 1995: 264). Hence, this gesture seems to be associated with the marking of a topic in the conversation. In terms of distribution with the spoken component, [FBO] is not found as a pro-speech gesture (i.e. articulated in place of speech), but it is exclusively reported as a co-speech gesture (i.e. co-articulated with spoken linguistic material). For instance, in (5) [FBO] is temporally aligned with the constituent *ccà 'o problemà* ‘here (is) the problem’, which Kendon (1995: 264-266) claims to be a topicalised constituent. Specifically, in (5) the chairman introduces the topic of conversation: the specific problem to be addressed by the theatre group committee during the meeting.

(5) Campanian (adapted from Kendon 1995: 265)

Context: SG is the chairman of a theatre group committee and he is trying to create an agenda including items for discussion during one of their meetings. SG says:

[FBO]

Ccà 'o problema! S' essa accumincià addò s' essa accumincià.

here the problem one.CL should start where one.CL should start

'Here is the problem! One should start from where one should begin.'

In sum, previous work by Kendon on [FBO] suggests that this gesture should be able to align with spoken topicalised constituents. However, from the empirical data reported by Kendon it is quite difficult to understand the exact grammatical contribution (if any) of [FBO]. Specifically, in the example above in (5), although a conversational context is reported, the presence of any anaphoric linguistic antecedent triggering topicalisation in the sentence is absent, making it difficult to replicate Kendon's claims. Moreover, it is also unclear which specific topic types [FBO] can align with. This is mostly consequential to the fact that Kendon (1995; 2004) defines topicalisation in purely pragmatic, rather than pragmatic-syntactic terms. In particular, Kendon does not provide any syntactic evidence for the distribution of the topicalised constituents and their relation (if any) with [FBO] in the relevant conversational context. Therefore, the main empirical contribution of this paper is to clarify the distribution of [FBO] with respect to topicalised constituents in Torrese.

In the next section, we briefly review some of the concepts and terminology on topicalisation used in previous research on Italo-Romance, which we will assume in this paper.

2.2. *Topicalisation in Italo-Romance*

Syntactic strategies involved in topicalisation have been relatively well-studied in Romance (see Cruschina 2021 for an overview). Concerning Italo-Romance, the literature dedicated to the syntactic encoding of topic in the sentence is quite vast.³

For the purposes of this paper, we distinguish three different types of topics: Aboutness Topic (**ATop**), Familiar Topic (**FTop**), and Contrastive Topic (**CTop**).⁴ In (southern) Italo-Romance (e.g. Neapolitan: Ledgeway 2009: 326-327; Barese: Andriani 2017: ch. 2; Cepranese: Colasanti 2018), these types of topics can be found in different disloca-

tion constructions, e.g. Clitic Left Dislocation (CLLD) and Clitic Right Dislocation (CLRD). In this work, we assume that in CLLD the dislocated topicalised constituent moves to the High Left Periphery (HLP; Rizzi 1997) and in CLRD to the Low Left Periphery (LLP; Belletti 2004). For instance, in Cepranese (southern Lazio; (6)) the left-dislocated constituent *lə sasiccə* ‘the sausages’ is interpreted as a CTop in the HLP.⁵ Here, the topic type is contrastive: *lə sasiccə* constitutes old information within the set of alternatives (*lə sasiccə*, *lə prəsuttə*), contrasting with another known member of the set (*lə prəsuttə*).

(6) Cepranese (CTop)

Marijə: *Ma Arduinə fa meglia lə sasiccə o lə prəsuttə?*

‘What does Arduinə make better between the sausages and the prosciutto?’

Marijə’s friend:

Lə sasiccə, Arduinə (lə) fa meglia, no lə prəsuttə.

the sausages Arduinə them.CL does better not the prosciutto

‘Arduinə makes the sausages better, not the prosciutto.’

Similarly, in Torrese (7) the left-dislocated constituent in a CLLD structure ‘*u ppanə frijkə* ‘the fresh bread’ is interpreted as a FTop in the HLP, as it constitutes anaphoric information which is restated by the speaker from the previous utterance.

(7) Torrese (FTop)

Gigginə: *Ki ‘u pportə ‘u ppanə frijkə?*

‘Who brings fresh bread?’

Toninə:

‘U ppanə frijkə, ‘u portə Mari.

the bread fresh it.CL brings Mary

‘As for fresh bread, Mary will bring it.’

Finally, in Standard Italian the constituent *i gladiatori* ‘the gladiators’ is interpreted as an ATop in (8), as it identifies what the sentence is about.

(8) Standard Italian (ATop; adapted from Cruschina 2021: 2)

I gladiatori entravano nell' arena, sfilavano, salutavano gli spettatori
the gladiators entered into.the arena they.marched they.greeted the public
e salutavano soprattutto l' imperatore, poi si recavano davanti alla
and they.hailed especially the emperor then REFL went in.front to.the
tribuna [...]

gallery

'The gladiators entered the arena, [they] marched, [they] greeted the public and especially hailed the emperor, then [they] used to go in front of the gallery [...]

With respect to right dislocation structures, Cruschina (2016: 601) reports that these are mostly found in Standard Italian and varieties of Regional Italian (9), whereas these are not generally found in local southern Italo-Romance languages (but see Colasanti 2021a). For instance, in Romano the DP *il caffè* 'the coffee' in a CLRD is interpreted as an ATop (9):

(9) Romano (ATop)

**(L') ha preso Francesca, il caffè.*

it.CL has took Francesca the coffee

'As for the coffee, Francesca took it.'

Cruschina (2021) reports that in Standard Italian the topicalisation below in (10) is possible with or without the resumptive clitic *l(o)*, which means that in Standard Italian both CLRD (with clitic resumption) and 'marginalisation' structures (without clitic resumption; see Cardinaletti 2002) are found (cf. the Romano example (9) above).

(10) Standard Italian

(L') ha letto Mario, il giornale.

it.CL has read Mario the newspaper

'Mario read the newspaper.'

Ledgeway (2009: 795) reports the general absence of topicalisation structures involving right dislocation in Neapolitan, with the sole excep-

tion of their presence in interrogative clauses. In such clauses, CLRD is exclusively used to topicalise FTop (rather than ATop), for instance when questioning a specific property of the topicalised referent. Rather, CLLD is mostly employed to topicalise ATop (rather than FTop). For instance, in (11) the left-dislocated constituent ‘*o ccafé* ‘the coffee’ is interpreted as a FTop in a CLRD structure and as an ATop in a CLLD structure in (12):

(11) Neapolitan (Ledgeway 2009: 795)

Context: the speaker is preparing coffee in front of the addressee while he asks:

‘*O bbuò ‘o ccafé?* CLRD/FTop
it.CL you.want the coffee
‘Do you want a coffee?’

(12) Neapolitan (Ledgeway 2009: 795)

Context: the speaker and the addressee are at the bar while the speaker asks:

‘*O ccafé ‘o bbuò?* CLLD/ATop
the coffee it.CL you.want
‘Do you want a coffee?’

Assuming this previous knowledge about topicalisation strategies and topic types in Italo-Romance, in the next section we introduce our research questions investigating the contribution of the co-speech gesture [FBO] to the information structure of the sentence, in particular with respect to topicalisation.

3. Research questions

This paper aims to address the following research questions:

1. Is [FBO] a T-marker in Torrese? If so, which type of topics can [FBO] mark in Torrese?
2. Does [FBO] temporally align with spoken topicalised constituents in Torrese?

The first part of Question 1 aims to investigate the distribution of [FBO] with respect to spoken topicalised constituents to understand whether it behaves like a gestural T-marker. In particular, the co-occurrence of [FBO] is tested with different types of topicalised

constituents (i.e. left-dislocated, right-dislocated), topic types (i.e. ATop, FTop, CTop), focalised constituents (i.e. broad and narrow foci), focus types (i.e. I(nformational)Foc, CFoc), and in neutral declarative clauses. If [FBO] is a T-marker, we should find a difference in preference between constructions in which [FBO] is associated with topicalised constituents vs constructions in which [FBO] is associated with non-topicalised constituents (e.g. focalised constituents, neutral declarative clauses). The second part of Question 1 addresses the question as to whether [FBO] can co-occur with all tested topic types (e.g. left-dislocated, right-dislocated, FTop, CTop, ATop, etc.) or only with a subset of these.

Question 2 investigates the temporal alignment of [FBO] with the spoken utterance, capitalising on the hypothesis by which the temporal alignment of the gesture with the spoken component mirrors its c-command/scope domain (Colasanti 2023a,b). In order to test this, we contrast configurations in which [FBO] is articulated: entirely before or after the utterance, entirely co-articulated throughout the utterance or just co-articulated with the topicalised constituent. If [FBO]'s temporal alignment mirrors its c-command/scope domain (i.e. the topicalised constituent), we should detect a difference in preference between constructions in which [FBO] is aligned with the topicalised constituent vs the ones in which it is not (i.e. test items in which [FBO] is articulated before or after the entire utterance, or co-articulated with the entire spoken utterance).

To answer our research questions, we conducted two pilot experiments, whose design we describe below.

4. Methodology: Gestural Fieldwork (Colasanti 2021b, *forthcoming*)

This paper employs the ‘Gestural Fieldwork’ methodology (Colasanti 2021b, *forthcoming*; **GF** henceforth). GF is conceived as hypothesis-driven experimental fieldwork designed as a mixture of traditional fieldwork (from descriptive linguistics) and experimental methods (from formal linguistics)⁶ to investigate phenomena in the visual-gestural modality in otherwise spoken languages. Given the theoretical nature of our hypotheses on the grammatical contribution of the [FBO] gesture, in this paper we adopted such a methodology because it allows us to collect data in the visual-gestural modality for theoretical purposes in under-described local languages spoken in southern Italy such as Torrese. Since in generative studies (with the exception of diachronic syntax) data come primarily from the intui-

tion of native speakers (i.e. acceptability judgments by signers and speakers), the GF methodology also enables us to collect positive and negative data points relevant for testing our theoretically-grounded hypotheses.

To answer our research questions we designed two experiments in Torrese: Experiment 1 tested the distribution of [FBO] in several topic and focus contexts and in neutral declarative sentences (Question 1). Experiment 2 tested how [FBO] aligns with the spoken component (Question 2). Both experiments consisted of acceptability judgment rating tasks. We describe the design of Experiment 1 and 2 below.

4.1. Participants

In both Experiment 1 and 2 we collected data from five native speakers of Torrese (with ages ranging from 28 to 74 years old)⁷ recruited by the authors via a friend-to-friend approach (Milroy 1987). Following the GF methodology (Colasanti 2021b, *forthcoming*), we selected our participants after interviewing all of them to verify their proficiency in Torrese.⁸ The controlled sampling of speakers is a necessary step while investigating under-described and endangered local Italo-Romance languages,⁹ such as Torrese. The participants selected were the same for both Experiment 1 and 2.

4.2. Materials

4.2.1. Experiment 1: the distribution of [FBO]

Experiment 1 investigated the co-occurrence of [FBO] with different kinds of topicalised constituents (i.e. HLP or LLP), topic types (i.e. ATop, CTop, FTop), focalised constituents (i.e. broad and narrow foci), and neutral declarative clauses. The acceptability of [FBO] was tested using acceptability tasks rating the degree of naturalness of each test item (i.e. 0 = unnatural, 5 = natural).¹⁰

Each of the 10 trials was designed following the original design conceived in the GF methodology (Colasanti 2021b, *forthcoming*). Specifically, the trials involved a controlled manipulation of conversational contexts in line with techniques used in semantic fieldwork (Bochnak & Matthewson 2015) and the syntactisation of discourse (Wiltschko 2021). Additionally, the trials included controlled manipulation of linguistic features, and controlled type of response by participants. Practically, each of the trials included an audio

recording of a detailed conversational context (13a) and a question asked by one of the interlocutors (13b), which acted as the anaphoric linguistic antecedent for the targeted answer pairs containing the relevant phenomena (in (13c) this is exemplified by the familiar left-dislocated topic ‘*o ppanə* ‘the bread’). These two utterances were contained in two different video recordings and were identical.¹¹ Each pair of video stimuli contained an audio of an utterance produced by a native Torrese speaker. In order to create a minimal pair, the target utterance was produced with an accompanying [FBO] gesture (produced across the topicalised constituent). In the other video, the utterance was produced without any gesture (i.e. the speaker sat still during the production of the relevant utterance). The utterance in the minimal pair tested the conditions of the experiments. In each of the trials both utterances were judged on the basis of which of the two videos was the most natural in the given utterance context (13d). In addition, each participant was asked to add a comment on their choice (13e).

The design of the trials of Experiment 1 is shown in (13):

(13) Trials design for Experiment 1

- a. **Utterance context (audio):** Giginə and Toninə are planning a trip to the mountains with their friends and it is understood that each of them will bring some food to share. Giginə asks Toninə:
- b. **Question (audio):** Who brings fresh bread?
- c. **Target sentence with or without [FBO] gesture (videos):**



The bread, Mary will bring it.



[FBO]

The bread, Mary will bring it.

- d. **Evaluation (Likert scale):** Indicate the degree of naturalness of each (0 = unnatural, 5 = natural).
- e. **Evaluation (comment):** Please tell us the rationale behind your choice.

4.2.2. Experiment 2: the spreading of [FBO] with the spoken component

Experiment 2 tested the temporal alignment of [FBO] with the spoken component. This experiment follows Colasanti's (2023a; 2023b) hypothesis that the temporal alignment of gestures can have syntactic significance: the onset and duration of certain co-speech gestures can reflect their c-command/scope domain. This hypothesis is inspired by the sign language linguistics literature on Non-Manual Markers¹² (Liddell 2003; Aarons 1994; Wilbur & Patschke 1999; Neidle *et al.* 2000; Branchini *et al.* 2013; Bross 2020; Wilbur 2021), in which their spreading is claimed to be able to mirror c-command relations with contemporaneously articulated manual signs.

Similarly to Experiment 1, each of the four trials of Experiment 2 was designed following the GF methodology (Colasanti 2021b, *forthcoming*). In particular, the temporal alignment of [FBO] with different topicalised constituents and topic types was tested with acceptability judgments. Each of the trials was designed similarly to the one of Experiment 1: these all comprised a pre-recorded audio of the utterance context (14a) and of the question triggering the targeted answers (14b) containing topicalised constituents paired with four prerecorded videos of different alignments of [FBO] (14c). Each of the videos included the same utterance; however, in two of the videos [FBO] was articulated before and after the whole utterance. In the other two videos, we tested different alignments: the articulation of [FBO] with the VP (or a subpart of it) and with the left-dislocated spoken topic constituents (in (14c) this is exemplified by the familiar left-dislocated topic 'o ppanə 'the bread'). Participants were asked to evaluate the degree of naturalness of each audio-video pairing (i.e. 0 = unnatural, 5 = natural; (14d)) and to briefly comment on their rating choices (14e).

The design of the trials of Experiment 2 is shown in (14):

(14) Trials design for Experiment 2

a. **Utterance context (audio):** Giggina and Tonina are planning a trip to the mountains with their friends and it is understood that each of them will bring some food to share. Giggina asks Tonina:

b. **Question (audio):** Who brings fresh bread?

c. **Target sentence with different [FBO] alignments (videos):**



[FBO] The bread, Mary will bring it.



The bread, Mary will bring it. [FBO]



The bread, Mary will bring it [FBO].



[FBO] The bread, Mary will bring it.

d. **Evaluation (Likert scale):** Indicate the degree of naturalness of each (0 = unnatural, 5 = natural).

e. **Evaluation (comment):** Please tell us the rationale behind your choice.

4.3. Procedure

Following the GF methodology (Colasanti 2021b, *forthcoming*), Experiment 1 and 2's procedure involved an in-person component. Both experiments were administered in person to all the participants by two fieldworkers (i.e. the authors). After signing the consent form, participants were given instructions before starting with Experiment 1 and ending with Experiment 2. In particular, for each of the trials the fieldworkers played the audio of the conversational context in Torrese. Afterwards, in order to trigger the answers containing the targeted phenomenon, the fieldworkers played the audio of the question in Torrese. After this step, participants were shown the pre-recorded videos (i.e. two in Experiment 1 trials and four in Experiment 2 trials). Participants were

finally asked to rate each of the utterances for each minimal pair in the trials from 0 (= unnatural) to 5 (= natural) and to comment on their choices. All the choices were annotated by the fieldworkers in an Excel file.

In what follows, we present the results of our experiments.

5. Results

5.1. Experiment 1: the distribution of [FBO]

Experiment 1 confirms that [FBO] cannot be paired with non-topicalised constituents but only with topicalised ones. For instance, in neutral declarative clauses the majority of our participants preferred test items in which [FBO] was not co-articulated with the sentence (15b) over the ones in which the gesture was co-articulated with the spoken component (15a):¹³

(15) Torrese (neutral declarative)

Context: Benedetta is very tired since a lot of stressful events happened at work today.

When she arrives home from work, she says:

- a. _____ [FBO]
*È statə na longa jurnatə.
it.is been a long day
- b. È statə na longa jurnatə.
it.is been a long day
'It has been a long day.'

Similarly, co-speech [FBO] was unacceptable when paired with focalised constituents. For instance, speakers unanimously rejected the test items in which the spoken utterance was paired with [FBO] in a broad focus context (16a), strongly preferring the utterance without [FBO] (16b).¹⁴

(16)Torrese (broad focus, HLP)

Context: Susanna was studying in her bedroom. Suddenly, she hears her father screaming in the kitchen. She runs to the kitchen and asks:

S: *Kə è succiesə llochə?*

‘What happened?’

Her father replies:

[FBO]

a. _____
**S’ a appilatə ‘u lavandinə.*

it.CL has blocked the sink

b. *S’ a appilatə ‘u lavandinə.*

it.CL has blocked the sink

‘The sink is blocked.’

Similarly, participants did not accept sentences in which [FBO] was temporally aligned with CFoc constituents dislocated to the HLP, like ‘*a pandarellə*’ ‘the Panda’ in (17):

(17)Torrese (CFoc, HLP)

Context: Peppə is waiting for his father in front of the post office. While waiting, Peppə notices that there is no parking available. Suddenly, his father arrives on foot and Peppə asks him:

G: *Addò l’ aie parkiggiatə ‘a Cincucientə?*

‘Where did you park the Cinquecento?’

His father replies:

[FBO]

a. _____
**‘A pandarellə, l’ aggia parkiggiatə annanzə a ‘u macellarə.*

the panda.little it.CL I.have parked in.front to the butcher

b. **‘A pandarellə, l’ aggia parkiggiatə annanzə a ‘u macellarə.*

the panda.little it.CL I.have parked in.front to the butcher

‘I have parked the Panda in front of the butcher (not the Cinquecento).’

The opposite pattern arose with left-dislocated topicalised constituents. In particular, participants accepted the co-occurrence of [FBO] with different kinds of topics dislocated to the HLP (i.e. ATop, Ftop, CTop). For instance, participants rated sentences in which the gesture co-occurred with Ftop *'u ppanə frijkə* 'the fresh bread' (18a) higher than the sentences in which the gesture was absent (18b).¹⁵

(18) Torrese (FTop, HLP)

Context: Gigginə and Toninə are planning a trip with their friends and they decided that each of them will bring something to eat. Gigginə asks Toninə:

G: *Ki ('u) pportə 'u ppanə frijkə?*

'Who brings fresh bread?'

Toninə answers:

[FBO]

- a. *'U ppanə frijkə, 'u pportə Marì.*
the bread fresh it.CL brings Mary
- b. *'U ppanə frijkə, 'u pportə Marì.*
the bread fresh it.CL brings Mary
'Mary will bring fresh bread.'

Co-speech [FBO] in Torrese was also accepted with other left-dislocated topics such as CTop (19) and ATop (20). In (19), [FBO] was accepted by our participants when it co-occurred with the topicalised constituent *Simonə* (19a), interpreted as a CTop in the HLP. Crucially, our participants rated the counterpart example in which [FBO] was not articulated (19b) lower.

(19)Torrese (CTop, HLP)

Context: Pascalə and Giusy are talking about their friends Markə and Simonə's next vacation plans. Giusy asks:

G: *Ki ppartə pa' 'a Calabbriə? Markə o Simonə?*
'Who leaves for Calabria? Markə or Simonə?'

Pascalə answers:

- a. [FBO]
Simonə, ppartə pa' 'a Calabbriə.
Simonə leaves for the Calabria
- b. *Simonə, ppartə pa' 'a Calabbriə.*
Simonə leaves for the Calabria
'Simonə leaves for Calabria.'

Similarly, participants accepted the sentences in which [FBO] was paired with the topicalised constituents '*u ccafé* 'the coffee'. Since the constituent expresses what the sentence is about, '*u ccafé* is interpreted in (20) as an ATop.

(20)Torrese (ATop, HLP)

Context: The speaker and the addressee are at the bar while the speaker asks:

- a. [FBO]
'U ccafé, t' 'u pigliə?
the coffee you.CL it.CL you.take
- b. *'U ccafé, t' 'u pigliə?*
the coffee you.CL it.CL you.take
'Do you want a coffee?'

Concerning left-dislocated topics to the LLP, [FBO] was only accepted when it was paired with dislocated topics which were interpreted as FTop and CTop (but not with ATop, as expected).¹⁶ In particular, sentences in which [FBO] was aligned with the topicalised constituent (21a) presented higher acceptability judgments with respect to the ones in which [FBO] was absent (21b). Contrary to what is found in Neapolitan (Ledgeway 2009: 795), in Torrese left-dislocated topics to

the LLP are not only restricted to interrogatives but are also found in declarative clauses.

(21) Torrese (FTop, LLP)

Context: Gennarə and Simonə are thinking of buying a birthday present for a friend.

Gennarə asks Simonə:

G: *C' accattammə nu bellə riloggia ra Rolex?*

'What about we buy him a beautiful Rolex watch?'

Simonə answers:

- [FBO]
- a. *'U tenə ggià, 'u riloggia ra Rolex.*
 it.CL he.holds already the watch of Rolex
- b. *'U tenə ggià, 'u riloggia ra Rolex.*
 it.CL he.holds already the watch of Rolex
 'He already has a Rolex.'

In sum, Experiment 1 results showed that [FBO] can only be co-articulated with topicalised constituents but not with non-topicalised ones. In particular, while [FBO] could not be paired with neutral declarative clauses and broad and narrow foci, it could be paired with left-dislocated ATop, FTop, and CTop, and left-dislocated FTop and CTop (but not ATop).

5.2. Experiment 2: the spreading of [FBO] with the spoken component

The results from Experiment 2 showed that participants unanimously rejected items in which co-speech [FBO] was articulated entirely after (22a) or before (22b) the sentence was paired with. Furthermore, constructions in which [FBO] was temporally misaligned with respect to the topicalised constituent were also judged as unacceptable (22c). Conversely, speakers accepted co-speech [FBO] when it was temporally aligned with the topicalised constituent *Simonə* (22d), interpreted as a CTop in the HLP.¹⁷ This pattern was also found for left-dislocated topics interpreted as either an FTop or an ATop in the HLP.

(22)Torrese (CTop, HLP)

Context: Pascalə and Giusy are talking about their friends Markə and Simonə's next vacation plans. Giusy asks:

G: *Ki ppartə pa' 'a Calabbriə? Markə o Simonə?*
'Who leaves for Calabria? Markə or Simonə?'

Pascalə answers:

a. **Simonə, ppartə pa' 'a Calabbriə [FBO].*

Simonə leaves for the Calabria FBO

b. **[FBO] Simonə, ppartə pa' 'a Calabbriə.*

FBO Simonə leaves for the Calabria

[FBO]

c. **Simonə, ppartə pa' 'a Calabbriə.*

Simonə leaves for the Calabria

[FBO]

d. *Simonə, ppartə pa' 'a Calabbriə.*

Simonə leaves for the Calabria

'Simonə leaves for Calabria.'

The same results were found for left-dislocated topics interpreted as FTops and CTops (but not ATops) in the LLP. This is shown in example (23), where [FBO] was rated as unacceptable by our speakers when it was articulated entirely after (23a), entirely before (23b), or it was misaligned with the spoken component (23c). By contrast, [FBO] was accepted when it was co-articulated with the dislocated constituent to the LLP interpreted as a FTop (23d).

(23) Torrese (FTop, LLP)

Context: Gennarə and Simonə are thinking of buying a birthday present for a friend.

Gennarə asks Simonə:

G: *C'accattammə nu bellə riloggia ra Rolex?*

What about a beautiful Rolex watch?

Simonə answers:

- a. **'U tenə ggià, 'u riloggia ra Rolex [FBO].*
 it.CL he.holds already the watch of Rolex FBO
- b. **[FBO] 'U tenə ggià, 'u riloggia ra Rolex.*
 FBO it.CL he.holds already the watch of Rolex
 _____ [FBO]
- c. **'U tenə ggià, 'u riloggia ra Rolex.*
 it.CL he.holds already the watch of Rolex
- d. _____ [FBO]
'U tenə ggià, 'u riloggia ra Rolex.
 it.CL he.holds already the watch of Rolex
 'He already has a Rolex.'

Summarising, speakers have clear judgments with respect to the temporal alignment of co-speech [FBO]. Specifically, they have accepted co-speech [FBO] exclusively when the gesture was temporally aligned with the topicalised constituent, but not when co-speech [FBO] was aligned with subparts of the clause, or when it was articulated before or entirely after the utterance.

In the next section, we analyse these results, which suggest that co-speech [FBO] seems to be a gestural T-marker in Torrese.

6. Analysis: [FBO] is a gestural T-marker in Torrese

In Romance, topicalisation is well-known for being a phenomenon at the interfaces, as it affects the grammatical properties of sentences not only semantically, but also syntactically and prosodically (see Section 2.2). Syntactic movement triggering a different semantic interpretation of the dislocated constituent (i.e. ATop, FTop, or CTop) is the most

common topicalisation strategy in Romance. Beyond Romance, morphological marking of topic by means of special T-markers (i.e. overt morphemes which mark the constituent they accompany as topicalised) is a rather common strategy crosslinguistically in both spoken and sign languages (e.g. in Gungbe languages: Kwa: Aboh 2004, 2007; Japanese: Imamura *et al.* 2014; Heycock 2008; Italian Sign Language: Branchini & Mantovan 2020: 724-726).

In the next sections, we are going to review crosslinguistic evidence to establish parallels between [FBO] in Torrese and T-markers in spoken and sign languages first. Afterwards, we discuss empirical evidence from our study in support of our analysis of [FBO] as a gestural T-marker.

6.1. Parallels between T-markers in spoken and sign languages vs [FBO] in Torrese

T-markers are found in several spoken (e.g. Grassfields Bantu: Bamileke Medumba: Keupdjio 2020; Japonic: Japanese: Heycock 2008; Tibeto-Burman: Zaiwa: Lustig 2010) and sign languages (e.g. Italian Sign Language: Branchini & Mantovan 2020: 724; American Sign Language: Liddell 1980). For example, in Bamileke Medumba, topicalised constituents can be marked both syntactically by movement and morphologically by a T-marker (Keupdjio 2020). As shown in (24), the T-marker *kí* follows the left-dislocated topicalised constituent (⁰*gùn jùùn-ní* ‘this girl’) in the HLP.

(24) Bamileke Medumba (Keupdjio 2020: 113)

⁰*gùn jùùn-ní* *kí* *Nùngè kéè* *í*.

girl AGR-1PROX TOP Nuga AGR.choose 3SG.ANIM

‘This girl, Nuga chose her.’

Similarly, in Torrese topicalised constituents can be marked by syntactic movement to the HLP (or the LLP) and morphologically by [FBO]. This is shown in example (25), where the topicalised constituent *Simonə* (interpreted as a CTop) is fronted to the HLP and it is co-articulated with [FBO], temporally aligned across the topicalised DP.

(25) Torrese (CTop)

G: *Ki ppartə pa' 'a Calabbriə? Markə o Simonə?*
 'Who leaves for Calabria? Markə or Simonə?'

Pascalə:

[FBO]

Simonə, ppartə pa' 'a Calabbria.

Simonə leaves for the Calabria

'Simonə leaves for Calabria.'

Like [FBO] in Torrese (25), in Italian Sign Language topicalised constituents are marked with the Non-Manual Markers RAISED-EYEBROWS and SQUINT-EYES ('sq'), which are co-articulated and temporally aligned with the signed topicalised constituent. For instance, in (26) the Non-Manual Marker 'sq' is co-articulated and temporally aligned with the topicalised constituent MAN IX(DEM) 'that man' (Branchini & Mantovan 2020: 724):

(26) Lingua Italiana dei Segni (Branchini & Mantovan 2020: 724)

sq
 MAN IX(DEM) IX₁ 3TELL₁ EVERYTHING

'That man has told me everything.'

T-markers are optional in many languages. For instance, in Warlpiri the T-marker *ju* (like [FBO] in Torrese) is optional, as shown in (27). In both (27) and (28) respectively, *ngula* 'that' in Warlpiri and '*u ppanə frijka*' 'the fresh bread' in Torrese are topicalised constituents.

(27) Walpiri (Hale 1976: 80)

Maliki-li kaji-ngki yarlki-rni nyuntu ngula(-ju) kapi-rna luwa-rni
 dog-ERG AUX-COMP bit-NPST you DEM-TOP FUT-1SG.3SG shoot-NPST

ngajulu-rlu.

me-ERG

'As for the dog that bites you, I'll shoot it.'

(28)Torrese

G: *Ki ('u) pportə 'u ppanə frijkə?*

'Who brings fresh bread?'

Toninə:

'U ppanə frijkə, 'u pportə Marì.

the bread fresh it.CL brings Mary

'Mary will bring fresh bread.'

In syntactic terms, T-markers have been analysed adopting fine-grained structures of the HLP *à la* Rizzi (1997) and of the LLP *à la* Belletti (2004). For instance, Aboh (2004) claims that in Kwa the T-marker *yà*, which follows the topicalised constituent *dan lo* 'the snake' in (29), occupies the head of a TopP in the HLP. Plausibly, the topicalised constituent moves to the specifier of TopP in order to get its interpretation.

(29)Kwa (Aboh 2004: 291)

Dan lo yà Kofi hu ì.

snake the TOP Kofi killed it

'The snake, Kofi killed it.'

In the next section, we argue that [FBO] in Torrese is a T-marker of the kind found in Kwa, Bamileke Medumba, and Italian Sign Language and it realises a Top head. We argue that the temporal alignment of [FBO] with the topicalised constituent marks the semantically-topicalised XP, which coincides with the syntactically-topicalised XP, like various T-markers in spoken and sign languages.

6.2. [FBO] is a gestural T-marker in Torrese

Previous studies on the grammatical integration of gestures have already demonstrated that languages primarily expressed via the auditory-spoken modality exhibit gestural markers that encode information structure in the visual-gestural modality.¹⁸ For instance, Colasanti (2023b) claims that the co-speech gesture [RING-FOCUS] in Lancianese (southern Italo-Romance) is a gestural focus marker, which is only found in focus-triggering contexts. Crucially, the gesture's temporal alignment is claimed to mirror its scope/c-command domain on the basis of the empirical evidence by which the onset and endpoint of its articulation coincides with the edges of

the focalised constituent (and it does not spread beyond this constituent; see also Colasanti 2023a on the co-speech gesture [MANO-A-BORSA] ‘pursed hand’ as a question marker in Neapolitan). This is shown in (30): while sentences in which [RING-FOCUS] is co-articulated with the non-focused IP (30a) or with the whole sentence (30b) are ungrammatical, [RING-FOCUS] is accepted only if its temporal alignment coincides with the focused constituent to the HLP which is interpreted as an IFoc (30c).

(30) Lancianese (Colasanti 2023b: 22)

Context: Ginə knows that Marijə bought a new car. When he meets her father at the market, he asks him:

G: *Ke machənə s'a accattatə Marijə?*

‘Which kind of car did Marijə buy?’

Marijə's father:



- a. **Na Ferrari s' a accattatə Marijə.*
 a Ferrari REFL has bought Marijə



- b. **Na Ferrari s' a accattatə Marijə.*
 a Ferrari REFL has bought Marijə



- c. *Na Ferrari s' a accattatə Marijə.*
 a Ferrari REFL has bought Marijə
 ‘Marijə bought A FERRARI.’

On the basis of such empirical evidence, Colasanti (2023b: 29-30) claims that [RING-FOCUS] realises a [FOC] on either the high or the low focus head in the HLP or the LLP, respectively. The heads of these two criterial projections act as probes, which attract a goal endowed with a [+FOC] feature within their c-command domain up to [Spec, FocP] (see Rizzi 1996, 1997, 2017). Following the movement of the focalised constituent in [Spec, FocP], this constituent becomes a suitable host for the spreading of [RING-FOCUS] from the Foc head to its specifier at PF. Hence, the spreading of the gestural exponent of Foc ([RING-FOCUS]) targets its specifier. This analysis explains the temporal alignment of

[RING-FOCUS] with the focalised constituent and predicts that [RING-FOCUS] cannot spread, for instance, on the whole sentence or with a subpart of it not coinciding with its c-command domain. As shown in (30), the facts from Lancianese show that this prediction is met.

Following the study by Colasanti (2023b) on [RING-FOCUS] in Lancianese, we propose that [FBO] is a gestural T-marker that realises gesturally a [+TOP] on either the low or the high topic head. Like both FocP in the HLP and the LLP, the TopP in the HLP and the LLP are also criterial projections and act as probes to attract goals [+TOP], and their c-command domain is up to [Spec, TopP] (see Rizzi 1996, 1997, 2017). With this in mind, after the movement of the spoken topicalised constituent in [Spec, TopP], [FBO] spreads from the Top head to its specifier at PF. This explains why the temporal alignment of [FBO] targets the spoken constituent in [Spec, TopP], why [FBO] cannot spread with any spoken component which does not coincide with its c-command domain, and why, more generally, it is found only with topics. This is shown in the repeated example (23), where the sentence in which [FBO] is temporally misaligned with part of the sentence (23a) is unacceptable and when it coincides with the spoken FTop constituent dislocated to the LLP *'u riloggià ra Rolex* 'a Rolex watch' is accepted (23b).¹⁹

(23) Torrese (FTop, LLP)

Context: Gennarə and Simonə are thinking of buying a birthday present for a friend.

Gennarə asks Simonə:

G: *C'accattammə nu bellə riloggià ra Rolex?*

What about a beautiful Rolex watch?

Simonə answers:

a. _____ [FBO]
 **'U tenə ggià, 'u riloggià ra Rolex.*

it.CL he.holds already the watch of Rolex

b. _____ [FBO]
'U tenə ggià, 'u riloggià ra Rolex.

it.CL he.holds already the watch of Rolex

'He already has a Rolex.'

Like [RING-FOCUS]'s spreading, the spreading of [FBO] is also grammatically significant, as it corresponds to its topic domain.

Furthermore, our results suggest that [FBO] in Torrese is the exponent of a Top head within the HLP or the LLP, which is realised at PF in the visual-gestural modality (i.e. gesturally) rather than in the auditory-spoken modality. As a matter of fact, similar analyses were proposed to account for the distribution of topicalised constituents and T-markers in spoken languages, which show a similar distribution to [FBO]. For instance, see the analysis put forward by Aboh (2004: 291) for the T-marker *yà* in Kwa (which data are reported in example (29) above).

Crucially, spoken morphemes that exclusively mark topicalised constituents (e.g. like the one found in Kwa or Bamileke Medumba) have not been documented in Romance. However, it seems that morphemes belonging to different grammatical categories (e.g. clitics, demonstratives) can be used in some Italo-Romance varieties to mark topicalised constituents.²⁰ For instance, Benincà (1983) claims that the invariable subject clitic (which has lost subject agreement morphology) *a* in Paduan occupies a Top position in the HLP as it is able to mark a topic (see also Poletto 2000: 8-9), i.e., it is a T-marker.

Similarly, Ledgeway (2011) argues that the demonstrative *killo/kella* ‘that.M/F’ and the neuter demonstrative *kello* ‘that.N’ in a double-subject construction in Neapolitan introduces a new topic in an information-structure marked sentence (see also Sornicola 1996). For instance, in (31) the demonstrative *kella* ‘that.F’ is coreferential with the full DP ‘*a fibbia*’ ‘the buckle’ and both represent the subjects in that sentence. In particular, *kella* and its coreferential lexical DP ‘*a fibbia*’ are claimed to both lexicalise positions in the Topic ‘subfield’ of the HLP (Ledgeway 2011: 285). Therefore, we could assume that *kella* is then a T-marker (like [FBO]), which might be able to attract the lexical subject DP to the HLP in order to be interpreted as an ATop.

(31) Neapolitan (adapted from Ledgeway 2011: 259)

Kella ‘*a* *fibbia* *s’* *è* *rotta*.
 that.one.F the.F buckle.F REFL is broken
 ‘The buckle has broken.’

Interestingly, like in Neapolitan, in Torrese such marked double-subject constructions can also be found (32a). However, when the neuter demonstrative *kello* is present, [FBO] is not accepted by our participants when it is co-articulated with both the demonstrative and the lexical DP subject (32b). Only when *kello* is dropped, [FBO] can still be articulated and it appears to be temporally aligned with the lexical DP

only (32c), interpreted as an ATop dislocated to the HLP. These facts from Torrese suggest that both [FBO] and *kello* are T-markers in Torrese as they seem to be competing for the same syntactic position.

(32) Torrese (ATop, HLP)

- a. *Kello* 'u *lavandinə s'* a *appilatə*.
 that.one.N the.M sink.M REFL has blocked
- b. _____ [FBO]
 **Kello* 'u *lavandinə s'* a *appilatə*.
 that.one.N the.M sink.M REFL has blocked
- c. _____ [FBO]
Kello 'u *lavandinə s'* a *appilatə*.
 that.one.N the.M sink.M REFL has blocked
 'As for the sink, it is blocked.'

Granted that the co-occurrence of *kello* and [FBO] deserves a more in-depth investigation in Torrese, the results of our study seem to show that [FBO] is a grammatically-integrated gesture distributing and syntactically behaving like its spoken T-marker counterparts.

7. Conclusions

The behaviour of [FBO] in Torrese constitutes empirical evidence in support of the GIH (Colasanti 2023b), by which any gesture assigned a semantic and a phonological representation is the output of the same syntactic mechanisms that govern both spoken and signed languages. Therefore, spoken morphemes and gestures are alike and their difference in modality of externalisation is only a matter dealt with at PF: speech is externalised in the auditory-spoken modality, and gesture (and sign) are externalised in the visual-gestural modality. The GIH predicts that grammatically-grounded expressions of the information structure of the sentence can also be expressed gesturally, e.g. via special T-markers realised at PF as gesture rather than speech. This paper shows that this prediction is met, as already demonstrated by the presence of gestural focus markers in southern Italo-Romance by Colasanti (2023b).

In this paper, we show that [FBO] in Torrese can be paired with left-dislocated constituents both in the HLP and in the LLP. While in the HLP the spoken constituent paired with [FBO] can be interpreted as ATop, CTop, and FTop, in the LLP the spoken constituent can only be interpreted as CTop or FTop but not as ATop (with or without [FBO]). Along the lines of previous analyses of spoken T-markers (Aboh 2004), we argued that [FBO] is a gestural T-marker which gesturally realises a [+TOP] on the HLP or the LLP. Following the attraction of the spoken constituent to [Spec, TopP], [FBO] spreads on the constituent at PF. This explains the results of our case study. In particular, such an analysis explains why [FBO] is only found in topic contexts, and why its temporal alignment only spreads over the topicalised constituent dislocated to either the HLP or the LLP (and not on the whole sentence).

In terms of crosslinguistic variation, [FBO] also seems to behave as a T-marker in other southern Italo-Romance varieties. At a first look, it seems that in Cepranese (southern Lazio), [FBO] behaves like in Torrese as well:

(33) Cepranese (FTop, LLP)

Context: Aldə and Franca are thinking of buying a birthday present for their father.

Aldə asks Franca:

A: *Cə cumpramə gliə casunə nuouə?*

‘What about we buy him a new pair of trousers?’

Franca answers:

_____ [FBO]

Gliə tè ggià, gliə casunə nuouə.

it.CL he.holds already the trousers new

‘He already has a new pair of trousers.’

Like [FBO] in Torrese, in Cepranese [FBO] there also seems to be a T-marker realised in the visual-gestural modality. Also in Cepranese (33), [FBO] can be paired with dislocated topicalised constituent *gliə casunə nuouə* ‘the new trousers’ interpreted as FTop in the LLP, exactly like what was found for Torrese.

To conclude, this study represents an additional step in uncovering the precise interplay between information structure and gesture, with particularly fruitful results in the local languages spoken in Italy, which could be extended to any language and language family.

Notes

¹ In this paper, we follow the terminology and the definitions found in Cruschina (2021).

² Needless to say that we assume that the semantics module too is involved in such a relationship as it deals with the semantic interpretation of information structure.

³ Cinque (1977, 1983, 1990); Cecchetto (1999); Belletti (2001); Benincà & Poletto (2004); Cardinaletti (2001, 2002, 2004); Ledgeway (2005, 2011); Brunetti (2009); Benincà & Munaro (2011); Frascarelli (2017); Frascarelli & Hinterhölz (2007); Colasanti (2018, 2021a); Cruschina (2021); D'Alessandro (2022), among others.

⁴ This list of topic types is not meant to be exhaustive as there are also other types of topic commonly found in Romance languages, see Cruschina (2021).

⁵ Note that in the CLLD structure in (6) the resumptive clitic *la* is not obligatory and it can be dropped.

⁶ Note that 'experimental' is treated in this paper as a gradable predicate, following work by Davidson (2020). For an overview of experimental methods used in formal linguistics see Schütze & Sprouse (2014); Sprouse (2023) and references therein.

⁷ An anonymous reviewer points out that, unexpectedly, the age range of our participants includes young speakers. In southern Italy, the local languages spoken in big cities (e.g. Napoli) and their associated urban areas are generally spoken by a higher number of speakers with respect to the ones spoken in smaller villages. Hence, it is not surprising that among speakers of Torrese we can also find relatively younger speakers (even younger than 28 years old). See also Bianchi & Maturi (2006); De Blasi (2006); Ledgeway (2009).

⁸ Before administering the experiments, the speakers were briefly interviewed by a native speaker of Torrese to evaluate their proficiency. Morphosyntactic phenomena typically found in Torrese (e.g. DOM, enclitic possessives) were especially considered while assessing the speakers' proficiency.

⁹ See Colasanti (2021b, *forthcoming*) on the methodological challenges arising while investigating gestures in Italo-Romance.

¹⁰ See Colasanti (2021b, *forthcoming*) for controlled type of response by participants as a core characteristic of the GF methodology.

¹¹ The intonational contour and the movement speed of the gesture was also controlled for each of the trials.

¹² Non-Manual Markers are produced with articulators other than the hands (e.g. hand position, body position, brow raising, eye gaze, lip movement, etc.).

¹³ The low acceptability ratings (< 3/5) of the (a) examples in (15) and (16) is indicated with '*'.

¹⁴ Interestingly, some speakers pointed out that other gestures can be co-articulated instead (e.g. [RING-FOCUS], cf. Colasanti & Cuonzo 2022; Colasanti 2023b). In particular, according to some of our participants, sentences involving focalised constituents co-articulated with [RING-FOCUS] would be more natural rather than the gestureless utterance, e.g. (16b). For further discussions on [RING-FOCUS] as a gestural focus marker, see Colasanti & Cuonzo (2022); Colasanti (2023b).

¹⁵ We take the lower acceptability ratings (< 3/5) of the (b) examples without [FBO] (over the higher of the (a) examples with [FBO]) in (18), (19), and (21) to mean that the (b) examples are less natural than the (a) ones. The majority of our speakers specified that although [FBO] is not obligatory, the examples with [FBO] were the preferred natural choice in the given conversational contexts. Consequently, the examples indicated above without [FBO] cannot be marked as being ungrammatical.

¹⁶ Note that unlike what is found in Neapolitan (Ledgeway 2009: 795), in which

dislocated constituents to the LLP can only be interpreted as FTop but not as ATop, in Torrese left-dislocated constituents in the LLP can be interpreted as both FTop and CTop but not as ATop.

¹⁷ The low acceptability ratings (< 3/5) of (a), (b), and (c) examples in (22) and (23) is indicated with ‘*’.

¹⁸ For works on the semantic contribution of gesture to information structure see Ebert *et al.* (2011); Esipova (2019). For works on the syntactic contribution of gestures to information structure see Colasanti & Cuonzo (2022); Colasanti (2023b).

¹⁹ Note that in (23) the constituent *‘u riloggia ra Rolex* is not in an IP-internal object position but it is left-dislocated to the LLP, where it is interpreted as a FTop. [FBO] is not compatible with unmarked clauses (e.g. neutral declaratives). See Colasanti (2021a) for the relevant diagnostics.

²⁰ This grammatical process, by which a grammatical category can be reanalysed in order to acquire a new grammatical function and a new semantico-pragmatic meaning, is akin to what Colasanti & Wiltschko (2019, 2025) call ‘recycling’.

Abbreviations

1, 2, 3 = first, second, third person; AGR = agreement; ANIM = animate; ATop = Aboutness Topic; AUX = auxiliary; CFoc = Contrastive Focus; CL = clitic; CLLD = Clitic Left Dislocation; CLRD = Clitic Right Dislocation; COMP = complementizer; CTop = Contrastive Topic; DEM = demonstrative; ERG = ergative; F = feminine; [FBO] = gesture [FINGER-BUNCH-OPEN-HAND]; FOC = focus; FTop = Familiar Topic; FUT = future; GF = Gestural Fieldwork; GIH = Grammatical Integration Hypothesis; HLP = High Left Periphery; IFoc = Informational Focus; IX = Index (pointing); LLP = Low Left Periphery; M = masculine; N = neuter; NPST = non-past; [PDO] = gesture [PALM-DOWN-OPEN-HAND-PRONE]; PF = Phonological Form; PROG = progressive; PROX = proximal; REFL = reflexive; SG = singular; T-markers = Topic markers; TOP = topic.

Bibliographical References

- Aarons, Debra 1994. *Aspects of the syntax of ASL*. PhD dissertation. Boston University, Massachusetts.
- Aboh, Enoch 2004. *The morphosyntax of complement-head sequences. Clause structure and word order patterns in Kwa*. Oxford: Oxford University Press.
- Aboh, Enoch 2007. Leftward Focus versus Rightward Focus: The Kwa-Bantu Conspiracy. *SOAS Working Papers in Linguistics* 15. 81-104.
- Andriani, Luigi 2017. *The Syntax of the Dialect of Bari*. PhD dissertation. University of Cambridge, UK.
- Belletti, Adriana 2001. The position of topic and focus in the left periphery. In Cinque, Guglielmo & Salvi, Giampaolo (eds.), *Current studies in Italian syntax. Essays offered to Lorenzo Renzi*. Amsterdam: Elsevier. 39-64.
- Belletti, Adriana 2004. Aspects of the low IP area. In Rizzi, Luigi (ed.), *The structure of CP and IP*. Oxford: Oxford University Press. 16-51.
- Benincà, Paola 1983. Il clitico ‘a’ nel dialetto padovano. In Benincà, Paola;

- Cortellazzo, Manlio; Prosdocimi, Aldo L.; Vanelli, Laura; Zamboni, Alberto; Pellegrini, Giovanni B. & Marcato, Carla (eds.), *Scritti linguistici in onore di Giovan Battista Pellegrini*. Pisa: Pacini. 25-32.
- Benincà, Paola & Munaro, Nicola 2011. *Mapping the Left Periphery: The Cartography of Syntactic Structures*. Vol. V. Oxford: Oxford University Press.
- Benincà, Paola & Poletto, Cecilia 2004. Topic, Focus, and V2: Defining the CP sublayers. In Rizzi, Luigi (ed.), *The structure of CP and IP*. Oxford: Oxford University Press. 52-75.
- Bianchi, Patricia & Maturi, Pietro 2006. Dialetto e italiano negli usi linguistici dei parlanti di Napoli e della Campania. In De Blasi, Nicola & Marcato, Carla (eds.), *Lo spazio del dialetto in città*. Napoli: Liguori. 1-21.
- Bochnak, M. Ryan & Matthewson, Lisa 2015. *Methodologies in Semantic Fieldwork*. Oxford: Oxford University Press.
- Branchini, Chiara; Cardinaletti, Anna; Cecchetto, Carlo; Donati, Caterina & Geraci, Carlo 2013. Wh-duplication in Italian Sign Language (LIS). *Sign Language & Linguistics* 16. 157-188.
- Branchini, Chiara & Mantovan, Lara 2020. *A Grammar of Italian Sign Language (LIS)*. Venice: Edizioni Ca' Foscari.
- Bross, Fabian 2020. Encoding different types of topics and foci in German Sign Language. *Glossa: A Journal of General Linguistics* 5. 1-29.
- Brunetti, Lisa 2009. On links and tails in Italian. *Lingua* 119. 756-781.
- Büring, Daniel 2009. Towards a Typology of Focus Realization. In Féry, Caroline & Zimmermann, Malte (eds.), *Information Structure: Theoretical, Typological, and Experimental Perspectives*. Oxford: Oxford University Press. 177-205.
- Cardinaletti, Anna 2001. A second thought on emarginazione: Destressing vs. 'Right Dislocation'. In Cinque, Guglielmo & Salvi, Giampaolo (eds.), *Current studies in Italian syntax. Essays offered to Lorenzo Renzi*. Amsterdam: Elsevier. 117-135.
- Cardinaletti, Anna 2002. Against optional and null clitics. Right Dislocation vs. Marginalization. *Studia Linguistica* 56. 29-57.
- Cardinaletti, Anna 2004. Towards a cartography of subject positions. In Rizzi, Luigi (ed.), *The structure of IP and CP. The Cartography of Syntactic Structures*. Vol. II. Oxford / New York: Oxford University Press. 115-165.
- Cecchetto, Carlo 1999. A comparative analysis of left and right dislocation in Romance. *Studia Linguistica* 53. 40-67.
- Chomsky, Noam 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Cinque, Guglielmo 1977. The movement nature of left dislocation. *Linguistic Inquiry* 8. 397-412.
- Cinque, Guglielmo 1983. 'Topic' constructions in some European languages and 'connectedness'. In Ehlich, Konrad & van Riemsdijk, Henk (eds.), *Connectedness in sentence, text, and discourse*. Tilburg: Tilburg University. 7-41. Reprinted in Anagnostopoulou, Elena; van Riemsdijk, Henk & Zwarts, Frans (eds.) 1997. *Materials on left dislocation*. Amsterdam: John Benjamins. 93-118.
- Cinque, Guglielmo 1990. *Types of A'-dependencies*. Cambridge, MA: MIT Press.
- Colasanti, Valentina 2018. La doppia serie di complementatori nei dialetti del Lazio meridionale: Un approccio microparametrico. *Revue de Linguistique Romane* 82. 65-91. <www.tara.tcd.ie/handle/2262/100136> .

- Colasanti, Valentina 2021a. Criterial positions as diagnostics in Italo-Romance: Some highs and lows. *Revue Roumaine de Linguistique* 66. 265-282. <lingv.ro/wp-content/uploads/2021/11/RRL-2-3-2021-11-Colasanti.pdf>.
- Colasanti, Valentina 2021b. Gestural fieldwork: A case study from southern Italy. Paper presented at Language Documentation and Linguistic Theory 6, SOAS London.
- Colasanti, Valentina 2023a. Functional gestures as morphemes: Some evidence from the languages of Southern Italy. *Glossa: A Journal of General Linguistics* 8. 1-45. <doi.org/10.16995/glossa.9743>.
- Colasanti, Valentina 2023b. Gestural focus marking in Italo-Romance. *Isogloss. Open Journal of Romance Linguistics* 9. 1-39.
- Colasanti, Valentina *forthcoming*. Gestural fieldwork. Manuscript, Trinity College Dublin.
- Colasanti, Valentina & Cuonzo, Clara 2022. Gestural focus marking. Talk given at PerForum, Forum on Performativity in Language and Beyond, University of Oslo, 3 June 2022.
- Colasanti, Valentina & Wiltschko, Martina 2019. Spatial and discourse deixis and the speech act structure of nominals. *Canadian Linguistic Association Annual Meeting (CLA)*. 1-14.
- Colasanti, Valentina & Wiltschko, Martina 2025. Demonstratives locate referents in common space and ground: A comparative syntactic approach. *Natural Language & Linguistic Theory*. <doi.org/10.1007/s11049-025-09675-3>.
- Cruschina, Silvio 2016. Information and discourse structure. In Ledgeway, Adam & Maiden, Martin (eds.), *The Oxford Guide to the Romance Languages*. Oxford: Oxford University Press. 596-608.
- Cruschina, Silvio 2021. Topicalization in the Romance Languages. In Aronoff, Mark (ed.), *Oxford Research Encyclopedia of Linguistics*. Oxford: Oxford University Press.
- D'Alessandro, Roberta 2022. Crossing domains: Topic marking and doubling in Romance. In Boneh, Nora; Harbour, Daniel; Matushansky, Ora & Roy, Isabelle (eds.), *Building on Babel's rubble*. Paris: Presses Universitaires de Vincennes. 395-410.
- Davidson, Kathryn 2020. Is “experimental” a gradable predicate? In Asatryan, Mariam; Song, Yixiao & Whitmal, Ayana (eds.), *NELS 50: Proceedings of the fiftieth annual meeting of the North East Linguistic Society*. Amherst, MA: GLSA. 125-144.
- De Blasi, Nicola 2006. *Profilo linguistico della Campania*. Bari: Laterza.
- De Jorio, Andrea 1832. *La mimica degli antichi investigata nel gestire napoletano*. Napoli: Fibreno.
- Ebert, Cornelia; Evert, Stefan & Wilmes, Katharina 2011. Focus Marking via Gestures. In Reich, Ingo; Horch, Eva & Pauly, Dennis (eds.), *Proceedings of Sinn & Bedeutung* 15. University of Konstanz. 193-208.
- Esipova, Maria 2019. Acceptability of at-issue co-speech gestures under contrastive focus. *Glossa: A Journal of General Linguistics* 4. 11. <doi.org/10.5334/gjl.635>.
- Frascarelli, Mara 2017. Dislocations and framings. In Dufter, Andreas & Stark, Elisabeth (eds.), *Manual of Romance Morphosyntax and Syntax*. Berlin: Mouton de Gruyter. 472-501.

- Frascarelli, Mara & Hinterhölz, Roland 2007. Types of topics in German and Italian. In Winkler, Susanne & Schwabe, Kerstin (eds.), *On information structure, meaning, and form*. Amsterdam: John Benjamins. 87-116.
- Hale, Ken 1976. The Adjoined Relative Clause in Australia. In Dixon, Robert M. W. (ed.), *Grammatical categories in Australian languages*. Canberra: Australian Institute of Aboriginal Studies. 78-105.
- Hartmann, Katharina & Zimmermann, Malte 2007. Focusing in Chadic: The case of Tangale revisited. *Studia Linguistica* 61. 95-129.
- Heycock, Caroline. 2008. Japanese *-wa, ga* and Information Structure. In Miyagawa, Shigeru & Saito, Mamoru (eds.), *The Oxford Handbook of Japanese Linguistics*. Oxford: Oxford University Press. 54-83.
- Hopper, Paul J. 1979. Some observations on the typology of focus and aspect in narrative language. *Studies in Language* 3. 37-64.
- Imamura, Satoshi; Sato, Yohei & Koizumi, Masatoshi 2014. Influence of information structure on word order change and topic marker WA in Japanese. *Proceedings of the 28th Pacific Asia Conference on Language, Information and Computing*, Phuket, Thailand. 432-441.
- Kendon, Adam 1988. How gestures can become like words. In Poyatos, Fernando (ed.), *Crosscultural perspectives in nonverbal communication*. Toronto, CJ: Hogrefe. 131-141.
- Kendon, Adam 1995. Gestures as illocutionary and discourse structure markers in Southern Italian conversation. *Journal of Pragmatics* 23. 247-279.
- Kendon, Adam 2004. *Gesture: Visible action as utterance*. Cambridge: Cambridge University Press.
- Keupdjio, Hermann 2020. *The syntax of A'-dependencies in Bamileke Medumba*. PhD dissertation. University of British Columbia, Canada.
- Ledgeway, Adam 2005. Moving through the left periphery: The dual complementiser system in the dialects of Southern Italy. *Transactions of the Philological Society* 103. 339-396.
- Ledgeway, Adam 2009. *Grammatica diacronica del napoletano*. Tübingen: Max Niemeyer.
- Ledgeway, Adam 2011. Subject Licensing in CP. The Neapolitan Double-Subject Construction. In Benincà, Paola & Munaro, Nicola (eds.), *Mapping the left periphery: The cartography of syntactic structures*. Vol. V. Oxford: Oxford University Press. 257-296.
- Liddell, Scott 1980. *American Sign Language syntax*. The Hague: Mouton.
- Liddell, Scott 2003. *Grammar, gesture, and meaning in American Sign Language*. Cambridge: Cambridge University Press.
- Lustig, Anton 2010. *A Grammar and Dictionary of Zaiwa*. Leiden: Brill.
- Marchetiello, Chiara 2024. Co-speech Palm Down Open Hand Prone gesture as epistemic marker in Neapolitan: A first look. Talk given to the 18th Cambridge Italian Dialect Syntax-Morphology Meeting, June 2024.
- Milroy, Lesley 1987. *Language and social networks*. 2nd edition. London: Blackwell.
- Munro, Pamela & Willmond, Catherine 1994. *Chickasaw: An Analytical Dictionary*. Norman: University of Oklahoma Press.
- Neidle, Carol; Kegl, Judy A.; MacLaughlin, Dawn; Bahan, Benjamin & Lee, Robert G. 2000. *The syntax of American Sign Language: Functional categories*

- and hierarchical structure. Cambridge, MA: MIT Press.
- Poletto, Cecilia 2000. *The higher functional field: Evidence from Northern Italian dialects*. Oxford: Oxford University Press.
- Rizzi, Luigi 1996. Residual verb second and the Wh-Criterion. In Belletti, Adriana & Rizzi, Luigi (eds.), *Parameters and functional heads: Essays in comparative syntax*. Oxford: Oxford University Press. 62-90.
- Rizzi, Luigi 1997. The Fine Structure of the Left Periphery. In Haegeman, Liliane (ed.), *Elements of Grammar*. Berlin: Springer. 281-337.
- Rizzi, Luigi 2017. Types of criterial freezing. *Rivista di grammatica generativa* 1. 1-21.
- Sandler, Wendy & Lillo-Martin, Diane 2006. *Sign Language and Linguistic Universals*. Cambridge: Cambridge University Press.
- Schütze, Carson T. & Sprouse, Jon 2014. Judgment data. In Podesva, Robert J. & Sharma, Devyani (eds.), *Research Methods in Linguistics*. Cambridge: Cambridge University Press. 27-50.
- Sornicola, Rosanna 1996. Alcune strutture con pronome espletivo nei dialetti italiani meridionali. In Benincà, Paola; Cinque, Guglielmo; De Mauro, Tullio & Nigol, Vincent (eds.), *Italiano e dialetti nel tempo. Saggi di grammatica per Giulio C. Lepschy*. Roma: Bulzoni. 323-340.
- Sprouse, Jon 2023. Acceptability judgements. In Sprouse, Jon (ed.), *Oxford Handbook of Experimental Syntax*. Oxford: Oxford University Press. 3-28.
- Wilbur, Ronnie 2021. Non-manual markers: Theoretical and experimental perspectives. In Quer, Josep; Pfau, Roland & Hermann, Annika (eds.), *The Routledge Handbook of Theoretical and Experimental Sign Language Research*. London: Routledge. 530-565.
- Wilbur, Ronnie & Patschke, Cynthia 1999. Syntactic correlates of brow rise in ASL. *Sign Language & Linguistics* 2. 3-40.
- Wiltschko, Martina 2021. *The Grammar of Interactional Language*. Cambridge: Cambridge University Press.

